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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------|------------------|
| 10/822,528   | 04/12/2004  | Daxiang Wang         | 1856-17802 (9405+7+11) | 3331             |
| 31889  | 7590        | 10/19/2004           | EXAMINER               |                  |
| DAVID W. WESTPHAL<br>CONOCOPHILLIPS COMPANY - I.P. Legal<br>P.O. BOX 1267<br>PONONCA CITY, OK 74602-1267 |             |                      | PARSA, JAFAR F         |                  |
|  |             |                      | ART UNIT               | PAPER NUMBER     |
|  |             |                      | 1621                   |                  |

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/822,528             | WANG ET AL.         |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Jafar Parsa            | 1621                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1--52, 55, 59-65 and 67 is/are rejected.
- 7) ☒ Claim(s) 53,54,56-58 and 66 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-28, 35-52, 55, 59-65 and 67 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No. 6,747,066. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of US patent 6,747,066 are directed to a specific species of the genus to remove oxygen from the syngas stream, whereas the independent claim 1 is directed to genus and is not limited to any particular separation technique for removing oxygen from the syngas stream. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any species of the genus taught by the reference. All the limitations disclosed in the instant claimed application are recited in claims 1-35 of US patent No. 6,747,066.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 29, 30, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleefisch et al (USPN 5,980,840) in view of Hemminger (USPN 2,674,611).

Applicants' claimed invention is directed to a process for making hydrocarbons comprising feeding a syngas stream under conversion promoting conditions to a Fischer-Tropsch reactor to form hydrocarbon products, wherein the syngas stream is made from partial oxidation of a hydrocarbon containing feed gas stream with diatomic oxygen-containing gas feed, and further wherein the syngas stream has a diatomic oxygen concentration less than 1000 ppm.

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Kleefisch teaches a process using oxygen ion conducting dense ceramic membrane to separate, selectively oxygen from an oxygen-containing gas to convert gaseous lower alkanes (C1-C4) to synthesis gas which comprises a gaseous mixture of molecular hydrogen and carbon monoxide by means of catalytic partial oxidation with separated oxygen supplied directly to the partial oxidation (see col. 7, lines 59-66 and col. 14, lines 49-55). Kleefisch teaches that synthesis gas has a utility as a feed stock as a conversion to alcohols and liquid hydrocarbon products (see col. 1, lines 59-62). Kleefisch's process is mainly directed to a process for the preparation of synthesis gas. However, Hemminger teaches a process for preparing liquid hydrocarbon products from synthesis gas free of oxygen (see col. 4, lines 32-36). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to use a synthesis gas free of oxygen prior to introduction to synthesis reactor to increase the catalytic activity of the Fischer-Tropsch synthesis catalyst.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Atroshchenko et al (Chemical abstract CAPLUS DN:93:81017).

Atroshchenko teaches a process for removal of oxygen from hydrogen and carbon monoxide mixture for the synthesis of the methanol. The catalyst was tested at

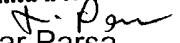
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50 atm. and 210-230 °C for the purification of a synthesis gas with an initial content of 0.3-0.33% O<sub>2</sub>. The catalyst showed higher activity and thermal stability than the previous used catalyst composition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jafar Parsa whose telephone number is (571)272-0643. The examiner can normally be reached on 8 a.m.-4:30 p.m. (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571)272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**J. PARSA**  
**PRIMARY EXAMINER**  
  
Jafar Parsa  
Primary Examiner  
Art Unit 1621

JP